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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/789,815

02/27/2004

Kenneth W. Baun

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04/19/2006

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EXAMINER

KO, TONY

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,815

Applicant(s)

BAUN, KENNETH W.

Examiner

Tony Ko

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2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-25 and 27-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,4-25 and 27-38 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 2/07/06 has been entered.

2. Claims 1, 4-25 and 27-38 are still pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-9, 14-16, 18, 19, 21, 24, 25, 27-31, 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Suda (U.S. Patent 6,388,707).

5. Regarding claim 1, Suda discloses (Figs. 1A, 19) a handheld night vision device for viewing a subject in low light conditions, wherein a reduced portion of a user's face proximate an eye is illuminated, the night vision device comprising: a housing having optics to collect light into the housing; an eyepiece (F) comprising a flexible eye cup including a pliable member capable of substantially

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form fitting an eye socket of a user thereby being capable of substantially precluding illumination of a face of the user by the night vision device; an imager (19 and 20) positioned to be illuminated by the light, the imager configured to generate an electrical signal representative of an intensity enhanced image of the light; and a digital display (24) disposed within the housing, the digital display configured to display the intensity enhanced image, wherein the digital display is viewable through the eyepiece.

6. Regarding claim 14, Suda discloses (Fig. 40) the method comprising: receiving image data through first optics (7) into a housing; digitally enhancing the image data to create enhanced image data (DSP 109b) adjusted for low light conditions; electronically displaying an image corresponding to the enhanced image data on a screen (24) disposed within the housing; and providing a view of the screen through a flexible eyepiece attached to the housing.

7. Regarding claim 4, Suda discloses the digital display comprises a liquid crystal display (Col. 6, Line 45).

8. Regarding claim 5, Suda discloses the device further comprises a light source (2).

9. Regarding claim 6, Suda further discloses the light source is an infrared light source.

10. Regarding claim 7, Suda discloses the light source comprises an array of infrared light emitting diodes (Fig. 2).

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11. Regarding claims 8 and 17, Suda discloses a user controller (on/off switch) configured to adjust the intensity of the light source. That is, user adjust the intensity by turning on or off the video camera.

12. Regarding claim 9, Suda discloses an interchangeable filter (101) disposed between the digital display and the eye piece.

13. Regarding claims 15 and 16, Suda further discloses emitting infrared light (2) so as to illuminate an object (eye) to be observed.

14. Regarding claim 18, Suda discloses comprising selectively adjusting (27) the gain of the screen.

15. Regarding claim 19, Suda discloses selectively filtering (DSP) the view of the screen through the flexible eyepiece.

16. Regarding claims 20 and 21, Suda discloses the selective filtering is based on preserving unaided visual acuity. That is, the digital signal processing provides enhanced signal to unaided eye.

17. Regarding claim 24, Suda discloses (Fig. 1B) the device further comprising: collecting light through an objective lens (8); and focusing (12) the light onto an optical sensor.

18. Regarding claim 25, Suda discloses an enclosure; sensing means (19 and 20) disposed within the enclosure for receiving light and for generating a signal proportional to an intensity enhanced image (amplified by device 20) of the light; means for receiving the signal and for displaying (24) the intensity enhanced image within the enclosure; and means, including a flexible eyepiece, for viewing the intensity enhanced image within the enclosure.

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19. Regarding claim 27, Suda discloses means for filtering (109, DSP) the intensity enhanced image.

20. Regarding claim 28, Suda discloses means (2) for emitting light substantially imperceptible to unaided humans, wherein the emitted light is detectable by the sensing means.

21. Regarding claim 29, Suda discloses means (12) for focusing the light onto the sensing means.

22. Regarding claim 30, Suda discloses means (DSP) for formatting the signal for display.

23. Regarding claim 31, Suda discloses a night vision scope comprising: a lens assembly (7) configured to collect light; a flexible eyepiece (F); a sensor (CCD) configured to amplify the light; and a video display module internal to a housing of the lens assembly, flexible eyepiece and sensor, the video display module (LCD) configured to display a video signal corresponding to an image of the amplified light.

24. Regarding claim 33, Suda discloses the sensor is made of charge coupled device.

25. Regarding claim 34, Suda discloses the sensor is a digital camera. That is, since the sensor process the signal digitally, it is understood that the sensor is a digital camera.

26. Regarding claim 35, Suda discloses an infrared light source (2).

27. Regarding claim 36, Suda discloses the internal video display module is a liquid crystal display.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 10-12, 22, 23, 32, 34, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda.

30. Regarding claims 10-12, Suda discloses the invention set forth above. Suda does not disclose the interchangeable filter is configured to change the properties of the displayed signals. It is well known to use filters to modify the displayed images. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the filter to modify the displayed images to enhance the images perceived by the user.

31. Regarding claim 13, Suda discloses the invention set forth above. Suda does not disclose the brightness of the device is adjustable. It is well known to adjust the brightness of the display. It would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the brightness of the display to enhance the image for viewability.

32. Regarding claims 22 and 23, Suda discloses the invention set forth above. Suda does not disclose providing an electronic signal corresponding to the enhanced image data to an external device to a remotely displaying location. It is well known to provide an electronic signal corresponding to the enhanced

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image data to an external device to a remotely displaying location. It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide an electronic signal corresponding to the enhanced image data to an external device to an remotely displaying location to for the image to be further processed.

33. Regarding claims 32, 37 and 38, Suda discloses the invention set forth above. Suda further discloses the switch 28 changes the signal inputted into the LCD display circuit and in term changes the color displayed by the display. Suda does not disclose the sensor or the display module is monochromatic. It is design choice to have monochromatic sensor/display. It would have been obvious to a person of ordinary skill in the art at the time of the invention to have monochromatic sensor/display to reduce the production cost.

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Palmer (U.S Patent 5444507) discloses video camera with image intensifier tube.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Ko whose telephone number is 571-272-1926. The examiner can normally be reached on Monday-Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TKO



THANH X. LUU
PRIMARY EXAMINER